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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,169	04/20/2005	Tadahiro Ishii	63076(71526)	6752
21874	7590	07/05/2006	EXAMINER	
EDWARDS & ANGELL, LLP			COHEN, AMY R	
P.O. BOX 55874			ART UNIT	PAPER NUMBER
BOSTON, MA 02205			2859	

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/532,169

Applicant(s)

ISHII ET AL.

Examiner

Amy R. Cohen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/20/05</u> .   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4, 6, 12, 13, 19, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lupton, Jr. et al. (U. S. Patent No. 5,622,137).

Lupton, Jr. et al. teaches a temperature indicating display device (Fig. 1) comprising an information recording film layer (10) having information (12) recorded therein and a temperature detecting agent layer (14) containing a substance of which a state shifts dependently on temperature, wherein the state of a substance in the temperature detecting agent layer shifts upon undergoing a predetermined temperature, so as to change a display of the information recorded in the information recording film layer (Col 2, lines 20-50, Col 3, lines 15-65).

Lupton, Jr. et al. teaches the temperature indicating display device wherein the substance of which the state shifts dependently on temperature contained in the temperature detecting agent is a substance that melts at a predetermined temperature or higher (Col 3, line 65-Col 4, line 17).

Lupton, Jr. et al. teaches the temperature indicating display device wherein the substance of which the state shifts dependently on temperature in the temperature detecting agent layer

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comprises at least one heat melting agent selected from the group consisting of a paraffin, a higher fatty acid, a higher fatty acid ester and a higher alcohol (Col 4, line 18-Col 5, line 3).

Lupton, Jr. et al. teaches the temperature indicating display device wherein the temperature detecting agent layer is adjacent to the information recording film layer (Fig. 2, Col 3, lines 15-65).

Lupton, Jr. et al. teaches the temperature indicating display device wherein the temperature indicating display device is in a form of a sticker (Col 9, lines 4-7).

Lupton, Jr. et al. teaches the temperature indicating display device wherein the temperature indicating display device comprises an adhesive layer and is capable of being attached (Col 9, lines 4-7).

Lupton, Jr. et al. teaches a temperature detecting agent capable of forming the temperature detecting agent layer comprising a substance of which the state shifts dependently on temperature in the temperature indicating display device (Col 3, line 51-Col 5, line 3).

Lupton, Jr. et al. teaches the temperature detecting agent wherein the temperature detecting agent is at least one kind of a heat melting agent selected from the group consisting of a paraffin, a higher fatty acid, a higher fatty acid ester and a higher alcohol (Col 4, line 18-Col 5, line 3).

3. Claims 1-3, 5, 21-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Simons (U. S. Patent No. 6,514,462).

Simons teaches a temperature indicating display comprising an information recording film layer having information recorded therein and a temperature detecting agent layer containing a substance of which a state shifts dependently on temperature, wherein the state of

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substance in the temperature detecting agent layer shifts upon undergoing a predetermined temperature, so as to change a display of the information recorded in the information recording film layer (Col 5, lines 22-43).

Simons teaches the temperature indicating display device wherein the substance of which the state shifts dependently on temperature contained in the temperature detecting agent layer is a substance that melts at a predetermined temperature or higher (Col 3, lines 42-44, Col 4, lines 15-37).

Simons teaches the temperature indicating display device wherein a substance forming a recording film of the information recording film layer is a substance that melts or disperses into the melted state of which the state shifts dependently on temperature contained in the temperature detecting agent layer (Col 5, lines 22-43).

Simons teaches the temperature indicating display device wherein the substance of which the state shifts dependently on temperature containing in the temperature detecting agent layer comprises two or more substances forming a heterogeneous phase, which becomes a homogenous phase to change a light transmittance at a predetermined temperature or higher (Col 4, lines 15-61).

Simons teaches a container comprising the temperature indicating display device (Col 4, lines 45-55, Col 5, lines 11-15).

Simons teaches the container wherein the container is a food container (Col 6, lines 60-65); a packing container (Col 4, lines 45-55, Col 5, lines 11-15); a transporting container (Col 4, lines 45-55, Col 5, lines 11-15).

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4. Claims 1-3, 7, 8, 10, 14-18, 25-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Seiter (U. S. Patent No. 3,967,579).

Regarding claims 1-3, 7, 8, 10: Seiter teaches a temperature indicating display device (10) comprising an information recording film layer (18) having information (24) recording therein and a temperature detecting agent layer (16) containing a substance of which a state shifts dependently on temperature (Col 4, lines 35-42), wherein the state of substance in the temperature detecting agent layer shifts upon undergoing a predetermined temperature, so as to change a display of the information recorded in the information recording layer (Col 2, lines 10-31).

Seiter teaches the temperature indicating display device wherein the substance of which the state shifts dependently on temperature contained in the temperature detecting agent layer is a substance that melts at a predetermined temperature or higher (Col 4, lines 35-42).

Seiter teaches the temperature indicating display device wherein a substance forming a recording film of the information recording film layer is a substance that melts or disperses into the melted state of which the state shifts dependently on temperature contained in the temperature detecting agent layer (Col 2, line 58-Col 3, line 2, Col 7, lines 18-38).

Seiter teaches the temperature indicating display device wherein the temperature indicating display device comprises a diffusion layer (14).

Seiter teaches the temperature indicating display device wherein the diffusion layer comprises a porous substance (Col 6, lines 12-26).

Seiter teaches the temperature indicating display device wherein the diffusion layer is disposed between the information recording film layer and the temperature detecting agent layer (Figs. 2 and 3).

Regarding claims 14-18: Seiter teaches a temperature indicating device (10) comprising a temperature detecting agent placing part (16) having a substance of which the state shifts dependently on temperature therein (Col 4, lines 35-42), and a diffusion layer (14) is disposed to touch the placing part.

Seiter teaches the temperature indicating device wherein the substance of which the state shifts dependently on temperature set in the temperature detecting agent part is a substance that melts at a predetermined temperature or higher, and a substance forming a recording film of an information recording film layer comprises a substance that melts or disperses into a melted state of which the state shifts dependently on temperature placed in the temperature detecting agent placing part (Col 2, line 58-Col 3, line 2, Col 7, lines 18-38).

Seiter teaches the temperature indicating device wherein the temperature detecting agent placing part has a barrier layer (20).

Seiter teaches the temperature indicating display device comprising a structure wherein at least a part of the diffusion layer of the temperature indicating display touched a part of an information recording film layer of an information display member having an information recording film layer and the temperature detecting agent is capable of flowing or permeating into the information recording film layer through the diffusion layer upon melting of the agent (Figs. 1 and 2, Col 4, lines 12-42).

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Seiter teaches the temperature indicating display device wherein the temperature indicating device and the information display member having the information recording film layer are totally covered with a transparent protective sheet (20, 20').

Regarding claims 25-32: Seiter teaches a temperature indicating display label (10) comprising a substrate (22'), a separator (16) containing a temperature detecting agent layer containing a substance of which the state shifts dependently on temperature (Col 4, lines 35-42), and an information record holding layer (18) containing an information recording layer having information recorded therein (Col 4, lines 13-25).

Seiter teaches the label wherein the information record holding layer comprises a transparent material (Col 4, lines 13-25).

Seiter teaches the label wherein the separator comprises a transparent material (Col 4, lines 13-25).

Seiter teaches the label wherein the temperature detecting agent layer containing in the separator and the information recording film layer recorded in the information recording holding layer are adjacent to each other (Figs. 1-3).

Seiter teaches the label wherein the label comprises a porous plate (14) capable of forming a diffusion layer.

Seiter teaches the label wherein the label comprises an adhesive layer on a back surface of the substrate, whereby the label is capable of being adhered (Col 4, lines 23-25).

Seiter teaches the label wherein the label comprises a protective plate (20').

Seiter teaches the label wherein information of the information recording film layer is printing (Col 4, lines 17-25).



Regarding claims 33 and 34: Seiter teaches a laminated body (10) comprising layers comprising a temperature detecting agent layer (16) containing a substance of which the state shifts dependently on temperature (Col 4, lines 35-42), an information recording film layer (18), and a information record holding layer (20).

Seiter teaches the laminated body wherein the laminated body further comprises a diffusion layer (14) between the information recording film layer and the temperature detecting agent layer.

5. Claims 1, 7, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahara et al. (U. S. Patent No. 4,601,588).

Takahara et al. teaches a temperature indicating display device (Fig. 1) comprising an information recording film layer (3) having information recording therein (Col 2, lines 35-55) and a temperature detecting agent layer (1, 2, 4) containing a substance of which a state shifts dependently on temperature (2), wherein the state of substance in the temperature detecting agent layer shifts upon undergoing a predetermined temperature, so as to change a display of the information recorded in the information recording layer (Col 2, lines 35-55).

Takahara et al. teaches the temperature indicating display device comprising a diffusion layer (5); wherein the diffusion layer comprises a paper (Col 2, line 43).

6. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Prusik et al. (U. S. Patent No. 6,042,264).

Prusik et al. teaches a temperature indicating display device (Fig. 1) comprising an information recording film layer (11) having information recording therein (13) and a temperature detecting agent layer (43) containing a substance of which a state shifts dependently

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on temperature (18b), wherein the state of substance in the temperature detecting agent layer shifts upon undergoing a predetermined temperature, so as to change a display of the information recorded in the information recording layer (Col 5, line 50-Col 6, line 14).

Prusik et al. teaches the temperature indicating display device wherein the substance of which the state shifts dependently on temperature (18b) contained in the temperature detecting agent layer is placed in a separator having a concave shape on a central part there of (Fig. 5).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents disclose temperature indicators Bonds et al. (U. S. Patent No. 6,786,638), Perner et al. (U. S. Patent No. 6,564,742), Simons et al. (U. S. Patent No. 6,214,623), Cannelongo et al. (U. S. Patent No. 5,779,364), Arens et al. (U. S. Patent No. 5,667,303), Prusik et al. (U. S. Patent No. 5,057,434), and Ferkel (U. S. Patent No. 1,623,666).


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy R. Cohen whose telephone number is (571) 272-2238. The examiner can normally be reached on 8 am - 5 pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARC  
June 23, 2006



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